ABSTRACT

A technique for time domain avoidance of communications link interference sources characterized by intermittent, periodic short bursts of energy. A transmitting source can be assigned two time slots within a time domain multiple access data frame over which each data packet can be transmitted. The time slots are separated by a duration greater than that of an interference burst, such that an interference burst does not affect both time slots in any given frame. Therefore, the data packet can be received on at least one of the two assigned time slots. Transmitter power consumption can be reduced by calculating the timing of the periodic interference bursts, and only transmitting a data packet on one of the two assigned time slots that will not coincide with an interference burst in each frame. Communications link capacity can be improved during the presence of interference by synchronizing the data frame to the timing of the interference bursts. The bursts then occupy fixed time slots in each data frame, enabling standard single time slot transmissions for the remaining communications channels in the data frame.